

#### AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended). A device for analysis of material by means of radiation, including

a radiation source (6) for producing [the] low energy radiation [(42)] (34),

a sample location (8) for accommodating a sample (10) of the material to be analyzed,

a position sensitive detection device (9) for detecting the radiation [(45)] (40) emanating from the sample,

which detection device includes

- an array (42) of radiation sensitive detector elements (44),

- an electronic read-out circuit (48) which is connected to the detector array and includes charge amplifiers (58) in a one-to-one relationship with the detector elements (44), the input of said charge amplifiers being connected to a respective one of the detector elements,

characterized in that

the charge amplifiers (58) are constructed in the integrated bipolar technique, and that the electronic read-out circuit (48) includes digital signal processing circuits (74-82) which are connected to the outputs of the charge amplifiers and are constructed in the digital technique[.], wherein the digital signal processing circuits are accommodated on the same substrate as the charge amplifiers 58, and wherein the digital signal processing circuits are constructed by means of a BICMOS process in the form of the Current Mode Logic (CML) technique.

Cancel Claim 2.

Cancel Claim 3.

Claim 4 (previously presented). A device as claimed in claim 1, wherein the assembly formed by the detector array (42) and the electronic read-out circuits (48) is accommodated on a common support (55) made of a ceramic material.

Claim 5 (previously presented). A position sensitive detection device for detecting radiation as defined in claim 1.